

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Patent Application of: Mansky et al.

Serial No. 09/210,485

Group Art Unit: 2857

Filed: December 11, 1998

Examiner: H. Wachsman

For: APPARATUS FOR RAPID SENSOR-ARRAY BASED MATERIALS
CHARACTERIZATION

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Commissioner for Patents
Washington, D.C. 20231

JUL 9 2002

TECHNOLOGY CENTER 2800

AMENDMENT AND RESPONSE

Sir:

In response to the Office Action dated December 5, 2001, please
amend the above-identified application as follows:

CLEAN VERSION OF AMENDMENTS

In the specification:

On Page 78, Line 14, please insert the term --Coping-- prior to the
term "U.S. Application" such that the clean version of the paragraph reads:

*ent
8,*

In this example, surface launched acoustic wave sensors can be
fabricated on thin silicon-nitride or etched silicon membranes 174 similar to
those described above. A piezoelectric material 176, such as zinc oxide, is
then deposited as a thin layer on top of the membrane to produce an acoustic
wave sensing device. The physical dimensions of the electrode, such as its
thickness, size, and configuration, can be adjusted so that the electrode
operates in, for example, a surface acoustic wave (SAW) resonance mode, a
thickness shear mode (TSM), a flexural plate wave (FPW) resonance mode,
or other resonance mode. When the electrode acts as a resonator, its
resonating response is affected by, for example, the sample's viscosity and
density. *8* Copending U.S. Application No. 09/133,171 to Matsiev et al, filed
August 12, 1998, describes mechanical resonators in more detail and is
incorporated by reference herein.